



NCMC-10 Agenda

NCMC-10, Completing the Combi Loop: Examining Persistent Challenges in Implementing Combinatorial Materials Science

October 5 - 6, 2006 ♦ Bldg. 101 / Lecture Room B

Thursday, October 5, 2006 - Morning

8:30 am ***Arrival and Continental Breakfast***

9:00 am Welcome and Workshop Introduction
Michael Fasolka, Director, NIST Combinatorial Methods Center

Workflows and System Integration

9:30 am Invited Lecture
Bret Chisholm, North Dakota State University
The Importance of Understanding the Capabilities of a Combinatorial Workflow

10:20 am ***Coffee Break***

10:30 am Invited Lecture
Wolfgang Schrof, BASF Aktiengesellschaft
Flexible All-in-One Workflows – Challenge for Combinatorial Systems Integration

11:20 am Invited Lecture
Matt Bishop, Dow Chemical Company
Thermoset Formulations

12:10 pm ***Lunch in the NIST Cafeteria*** (use Lunch Ticket provided in Badge Holder)

Thursday, October 5, 2006 - Afternoon

Library Design and Fabrication

1:20 pm Invited Lecture
Eric Amis, Deputy Director MSEL, NIST
Exploiting the Innovator's Dilemma: Making Breakthroughs Happen

2:10 pm Invited Lecture
Bruce van Dover, Cornell University
Combinatorial Exploration of Ternary Metal Catalysts for Low-Temperature Fuel Cells

3:00 pm ***Refreshment Break***

**NCMC-10, Completing the Combi Loop: Examining Persistent Challenges in Implementing
Combinatorial Materials Science**

3:10 pm Invited Lecture
Jeff Gilman, Building and Fire Research Laboratory, NIST
*Leveraging Current Technology for Fabricating New Materials Libraries:
Extrusion and Gradient Spray Coatings Platforms*

Discussion Sessions – Lecture Room B and Room B-111

4:00 pm **Introduction:** Michael Fasolka, Director, NIST Combinatorial Methods Center

4:10 pm **Discussion Moderators:** Fasolka, Beers, and Stafford

5:15 pm **Adjourn**

6:15 pm **Dinner:** That's Amore, Gaithersburg (see Map provided in Workshop Binder)

Friday, October 6, 2006 – Morning

NCMC Update

8:15 am **Continental Breakfast**

8:45 am **Michael Fasolka**, NCMC
Welcome Back

8:50 am **Kathryn Beers**, NCMC
Radical Polymerization in Small Spaces

9:20 am **Carl Simon**, NIST
Polymer Scaffold Libraries

9:40 am **Nathan Gallant**, NIST
Versatile Bioactive Surface Gradients to Quantify Cell Response

10:00 am **Leah Lucas**, NCMC
*Combinatorial Thermal Platform for Study of Polythiophene Thin Film Structure
and Organic Field Effect Transistors*

10:20 am **Coffee Break**

10:30 am **Michael Fasolka**, NCMC
High-Throughput Preparation of Specimens for TEM

10:50 am **Patty McGuiggan**, NCMC
High-Throughput Peel Testing

11:10 am **Heqing Huang**, NCMC
Mechanics of Complex Interfaces: Interfacial Adhesion

11:30 am **Tom Chastek**, NCMC
Microfluidic Light Scattering

11:50 am **Makoto Otani**, Electronic & Optoelectronic Materials Group, MSEL
*Development of a High Throughput Characterization Tool for Combinatorial
Thermoelectric Materials Research*

***NCMC-10, Completing the Combi Loop: Examining Persistent Challenges in Implementing
Combinatorial Materials Science***

12:10 pm **Kao-Shuo Chang**, Electronic & Optoelectronic Materials Group, MSEL
*Combinatorial Study of Metal Gate Electrodes on HfO₂ for the Advanced CMOS
Gate Stack*

12:30 pm ***Lunch in the NIST Cafeteria*** (use Lunch Ticket provided in Badge Holder)

Friday, October 6, 2006 – Afternoon

NCMC Tours and Demonstrations

1:30 pm ***Lab Tours*** – convene in the NCMC Labs, Building 224, Room B204 (see Lab
Tours Handout for Schedule)

3:30 pm ***Adjourn***

Please mark your calendars to join us at NCMC-11 on April 30-May 1, 2007!